

AMENDMENTS

In the Claims:

1. (Previously Amended) A solid chelating resin comprising:
a reactive hydrophobic backbone having one or more reactive chemical groups; and
pendent carbodithioic groups,
wherein said resin contains no tertiary nitrogen groups.
2. (Original) The resin of Claim 1 wherein said hydrophobic backbone is nucleophilic.
3. (Original) The resin of Claim 1 wherein said resin is a poly(dithiocarbamate).
4. (Canceled)
5. (Previously Amended) The resin of Claim 1 further comprising a cross-linking reagent reacted onto reactive sites of said hydrophobic backbone.
6. (Original) The resin of Claim 5 wherein said cross-linking reagent reacts to form an alkylene, amine, ether, phosphine, sulfide, amide, urea, urethane, phosphoamidate, or thioamidate linkage.
7. (Previously amended) The resin of Claim 5 wherein said cross-linking reagent is selected from the group consisting of 4,4'-methylenebis (phenyl isocyanate) (MDI), polymethylene polyphenyl isocyanate (PAPI), tolylene 2,4, diisocyanate (TDI), isophorone diisocyanate (IPDI), terephthalic acid, adipic acid, and mixtures thereof.
8. (Previously Amended) The resin of Claim 2 wherein said nucleophilic backbone comprises a C, N, O, P, S, or mixtures thereof.

9. (Previously amended) The resin of Claim 1 wherein said one or more reactive chemical groups comprises a diamine, multiamine or a diol.
10. (Previously amended) The resin of Claim 9 wherein said one or more reactive chemical groups comprises hexamethylenediamine (HMDA), diethylenetriamine (DETA), triethylenetetramine (TETA), tetraethylenepentamine (PETA), or a mixture thereof.
11. (Currently amended) A process for producing a chelating resin comprising:
 - reacting a nucleophilic compound with carbon disulfide in a ~~suitable~~ solvent, to form a carbodithioic acid;
 - neutralizing said carbodithioic acid with a base to form a carbodithioic acid salt; and
 - reacting reactive sites on said carbodithioic acid salt with a crosslinking reagent in a solvent to form a solid chelating resin.
12. (Original) The process of claim 11 wherein said chelating resin comprises a (poly)dithiocarbamate resin.
13. (Original) The process of claim 11 wherein said nucleophilic compound comprises an amine.
14. (Original) The process of claim 13 wherein said amine comprises a polyamine.
15. (Original) The process of claim 14 wherein said polyamine comprises polyethyleneimine polyamine.
16. (Previously amended) The process of claim 11 wherein the molar ratio of carbon disulfide to reactive nucleophilic sites is from 0.1:1.0 to 0.9:1.0.
17. (Previously amended) The process of claim 16 wherein the molar ratio of carbon disulfide to reactive nucleophilic sites is from 0.3:1.0 to 0.7:1.0.

18. (Previously amended) The process of claim 11, wherein said nucleophilic reaction occurs at a pH of from 7.0 to 13.0.
19. (Original) A process for removing contaminants from an effluent stream by contacting the effluent stream with the chelating resins of claim 1.
20. (Original) The process of claim 19 wherein said chelating resin is contained in a cylinder, a filter, a flow-through packet, or a cartridge.
21. (Original) A solid chelating composition comprising the solid chelating resin of claim 1 and at least one inert filler.
22. (Previously amended) The composition of claim 21, wherein the weight ratio of filler to resin is from 0.10:1.0 to 0.90:1.0.
23. (Previously amended) The composition of claim 22, wherein the weight ratio of filler to resin is from 0.30:1.0 to 0.70:1.0.